

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A method of driving an EL display device including a plurality of pixels, each having a first TFT, a second TFT, a third TFT, and an organic EL element, the method comprising:

dividing a frame period into $n + m$ display periods with n and m being natural numbers of one or more, wherein the $n + m$ display periods each correspond to one bit of a digital video signal among n bits of the digital video signal, a plurality of display periods, among the $n + m$ display periods correspond to the same bit of the digital video signal, and other display periods corresponding to other bits of the digital video signal, among the $n + m$ display periods, appear between the plurality of display periods;

for each of the $n + m$ display periods, inputting the corresponding bit of the digital video signal to a gate electrode of the second TFT by turning on the first TFT and beginning the respective display period by turning off the third TFT; and

after each of the $n+m$ display period begins completing the respective display period by turning on the third TFT;

wherein the organic EL element emits light when the second TFT is turned on, and does not emit light when the second TFT is turned off,

wherein the first TFT comprises a crystalline semiconductor film, a gate insulating film over the crystalline semiconductor film, first and second gate electrodes formed over the crystalline semiconductor film with the gate insulating film interposed therebetween, and first and second channel forming regions in the crystalline semiconductor film below the first and second gate electrodes, respectively, and a pair of first impurity regions in the crystalline semiconductor film between the first and second channel forming regions and a third impurity region between the pair of first impurity regions

~~wherein a bit number of a first display period among the $n + m$ display periods is different from a bit number of a last display period among the $n + m$ display periods.~~

2. (Previously presented) A method according to claim 1, wherein the first TFT and the second TFT have the same polarity.

3. (Previously presented) A method according to claim 1, wherein $Tr_1, Tr_2, Tr_3, \dots, Tr_{n-1} = 2^0, 2^1, 2^2, \dots, 2^{n-2}, 2^{n-1}$, where the lengths of the display periods, among the $n + m$ display periods, corresponding to respective bits of the digital video signal are taken as $Tr_1, Tr_2, Tr_3, \dots, Tr_{n-1}, Tr_n$.

4. (Previously presented) A method according to claim 1, wherein the first TFT functions as a switching TFT, the second TFT functions as an EL driver TFT, and the third TFT functions as an erasing TFT.

5. (Currently amended) A method of driving an EL display device including a plurality of pixels, each having a first TFT, a second TFT, a third TFT, and an organic EL element, the method comprising:

dividing a frame period into $n + m$ display periods with n and m being natural numbers of one or more, wherein the $n + m$ display periods each correspond to one bit of a digital video signal among n bits of the digital video signal, a plurality of display periods, among the $n + m$ display period correspond to the most significant bit of the digital video signal, and other display periods corresponding to other bits of the digital video signal, among the $n + m$ display periods, appear between the plurality of display periods;

for each of the $n + m$ display periods, inputting the corresponding bit of the digital video signal to a gate electrode of the second TFT by turning on the first TFT and beginning the respective display period by turning off the third TFT; and

after each of the $n + m$ display periods begins, completing the respective display period by turning on the third TFT;

wherein the organic EL element emits light when the second TFT is turned on, and does not emit light when the second TFT is turned off,

wherein the first TFT comprises a crystalline semiconductor film, a gate insulating film over the crystalline semiconductor film, first and second gate electrodes formed over the crystalline semiconductor film with the gate insulating film interposed therebetween, and first and second channel forming regions in the crystalline semiconductor film below the first and second gate electrodes, respectively, and a pair of first impurity regions in the crystalline semiconductor film between the first and second channel forming regions and a third impurity region between the pair of first impurity regions

~~wherein a bit number of a first display period among the $n + m$ display periods is different from a bit number of a last display period among the $n + m$ display periods.~~

6. (Previously presented) A method according to claim 5, wherein the first TFT and the second TFT have the same polarity.

7. (Previously presented) A method according to claim 5, wherein $Tr_1, Tr_2, Tr_3, \dots, Tr_{n-1} = 2^0, 2^1, 2^2, \dots, 2^{n-2}, 2^{n-1}$, where the lengths of the display periods, among the $n + m$ display periods, corresponding to respective bits of the digital video signal are taken as $Tr_1, Tr_2, Tr_3, \dots, Tr_{n-1}, Tr_n$.

8. (Previously presented) A method according to claim 5, wherein the first TFT functions as a switching TFT, the second TFT functions as an EL driver TFT, and the third TFT functions as an erasing TFT.

9. (Currently amended) A method of driving an EL display device including a plurality of pixels, each having a first TFT, a second TFT, a third TFT, and an organic EL element, the method comprising: .

dividing a frame period into $n + m$ display periods with n and m being natural numbers of one or more, wherein the $n + m$ display periods each correspond to one bit of a digital video signal among n bits of the digital video signal, upper bits of the digital video signal correspond to a plurality of display periods among the $n + m$ display periods, and other display periods corresponding to other bits of the digital video signal, among the $n + m$ display periods, appear between the plurality of display periods;

for each of the $n + m$ display periods, inputting the corresponding bit of the digital video signal to a gate electrode of the second TFT by turning on the first TFT and beginning the respective display period by turning off the third TFT; and

after each of the $n + m$ display periods begins, completing the respective display period by turning on the third TFT;

wherein the organic EL element emits light when the second TFT is turned on, and does not emit light when the second TFT is turned off,

wherein the first TFT comprises a crystalline semiconductor film, a gate insulating film over the crystalline semiconductor film, first and second gate electrodes formed over the crystalline semiconductor film with the gate insulating film interposed therebetween, and first and second channel forming regions in the crystalline semiconductor film below the first and second gate electrodes, respectively, and a pair of first impurity regions in the crystalline semiconductor film between the first and second channel forming regions and a third impurity region between the pair of first impurity regions

~~wherein a bit number of a first display period among the $n + m$ display periods is different from a bit number of a last display period among the $n + m$ display periods.~~

10. (Previously presented) A method according to claim 9, wherein the first TFT and the second TFT have the same polarity.

11. (Previously presented) A method according to claim 9, wherein $Tr_1, Tr_2, Tr_3, \dots, Tr_{n-1} = 2^0, 2^1, 2^2, \dots, 2^{n-2}, 2^{n-1}$, where the lengths of the display periods, among the $n + m$ display periods, corresponding to respective bits of the digital video signal are taken as $Tr_1, Tr_2, Tr_3, \dots, Tr_{n-1}, Tr_n$.

12. (Previously presented) A method according to claim 9, wherein the first TFT functions as a switching TFT, the second TFT functions as an EL driver TFT and the third TFT functions as an erasing TFT.

13. (Currently amended) A method of driving an EL display device including a plurality of pixels, each having a first TFT, a second TFT and an organic EL element, the method comprising:

dividing a frame period into $n + m$ display periods with n and m being natural numbers of one or more, wherein the $n + m$ display periods each correspond to one bit of a digital video signal among n bits of the digital video signal, a plurality of display periods, among the $n + m$ display periods, correspond to the same bit of the digital video signal, and other display periods corresponding to other bits of the digital video signal, among the $n + m$ display periods, appear between the plurality of display periods;

for each of the $n + m$ display periods, inputting the corresponding bit of the digital video signal to a gate electrode of the second TFT by turning on the first TFT; and

after each of the $n + m$ display periods begins completing the respective display period by beginning another display period;

wherein the organic EL element emits light when the second TFT is turned on, and does not emit light when the second TFT is turned off,

wherein the first TFT comprises a crystalline semiconductor film, a gate insulating film over the crystalline semiconductor film, first and second gate electrodes formed over the crystalline semiconductor film with the gate insulating film interposed therebetween, and first

and second channel forming regions in the crystalline semiconductor film below the first and second gate electrodes, respectively, and a pair of first impurity regions in the crystalline semiconductor film between the first and second channel forming regions and a third impurity region between the pair of first impurity regions

~~wherein a bit number of a first display period among the $n + m$ display periods is different from a bit number of a last display period among the $n + m$ display periods.~~

14. (Previously presented) A method according to claim 13, wherein the first TFT and the second TFT have the same polarity.

15. (Previously presented) A method according to claim 13, wherein $Tr_1, Tr_2, Tr_3, \dots, Tr_{n-1} = 2^0, 2^1, 2^2, \dots, 2^{n-2}, 2^{n-1}$, where the lengths of the display periods, among the $n + m$ display periods, corresponding to respective bits of the digital video signal are taken as $Tr_1, Tr_2, Tr_3, \dots, Tr_{n-1}, Tr_n$.

16. (Previously presented) A method according to claim 13, wherein the first TFT functions as a switching TFT and the second TFT functions as an EL driver TFT.

17. (Currently amended) A method of driving an EL display device including a plurality of pixels, each having a first TFT, a second TFT, and an organic EL element, the method comprising:

dividing a frame period into $n + m$ display periods with n and m being natural numbers of one or more, wherein the $n + m$ display periods each correspond to one bit of a digital video signal among n bits of the digital video signal, a plurality of display periods, among the $n + m$ display periods, correspond to the most significant bit of the digital video signal, and other display periods corresponding to other bits of the digital video signal, among the $n + m$ display periods, appear between the plurality of display periods;

for each of the $n + m$ display periods, inputting the corresponding bit of the digital video signal to a gate electrode of the second TFT by turning on the first TFT; and

after each of the $n + m$ display periods begins, completing the respective display period by beginning of another display period;

wherein the organic EL element emits light when the second TFT is turned on and does not emit light when the second TFT is turned off,

wherein the first TFT comprises a crystalline semiconductor film, a gate insulating film over the crystalline semiconductor film, first and second gate electrodes formed over the crystalline semiconductor film with the gate insulating film interposed therebetween, and first and second channel forming regions in the crystalline semiconductor film below the first and second gate electrodes, respectively, and a pair of first impurity regions in the crystalline semiconductor film between the first and second channel forming regions and a third impurity region between the pair of first impurity regions

~~wherein a bit number of a first display period among the $n + m$ display periods is different from a bit number of a last display period among the $n + m$ display periods.~~

18. (Previously presented) A method according to claim 17, wherein the first TFT and the second TFT have the same polarity.

19. (Previously presented) A method according to claim 17, wherein $Tr_1, Tr_2, Tr_3, \dots, Tr_{n-1} = 2^0, 2^1, 2^2, \dots, 2^{n-2}, 2^{n-1}$, where the lengths of the display periods, among the $n + m$ display periods, corresponding to respective bits of the digital video signal are taken as $Tr_1, Tr_2, Tr_3, \dots, Tr_{n-1}, Tr_n$.

20. (Previously presented) A method according to claim 17, wherein the first TFT functions as a switching TFT and the second TFT functions as an EL driver TFT.

21. (Currently amended) A method of driving an EL display device including a plurality of pixels, each having a first TFT, a second TFT, and an organic EL element, the method comprising:

dividing a frame period into $n + m$ display periods with n and m being natural numbers of one or more, wherein the $n + m$ display periods each correspond to one bit of a digital video signal among n bits of the digital video signal, upper bits of the digital video signal correspond to a plurality of display periods among the $n + m$ display periods, and other display periods corresponding to other bits of the digital video signal, among the $n + m$ display periods, appear between the plurality of display periods;

for each of the $n + m$ display periods, inputting the corresponding bit of the digital video signal to a gate electrode of the second TFT by turning on the first TFT; and

after each of the $n + m$ display periods begins completing the respective display period by beginning another display period;

wherein the organic EL element emits light when the second TFT is turned on and does not emit light when the second TFT is turned off,

wherein the first TFT comprises a crystalline semiconductor film, a gate insulating film over the crystalline semiconductor film, first and second gate electrodes formed over the crystalline semiconductor film with the gate insulating film interposed therebetween, and first and second channel forming regions in the crystalline semiconductor film below the first and second gate electrodes, respectively, and a pair of first impurity regions in the crystalline semiconductor film between the first and second channel forming regions and a third impurity region between the pair of first impurity regions

~~wherein a bit number of a first display period among the $n + m$ display periods is different from a bit number of a last display period among the $n + m$ display periods.~~

22. (Previously presented) A method according to claim 21, wherein the first TFT and the second TFT have the same polarity.

23. (Previously presented) A method according to claim 21, wherein $Tr_1, Tr_2, Tr_3, \dots, Tr_{n-1} = 2^0, 2^1, 2^2, \dots, 2^{n-2}, 2^{n-1}$, where the lengths of the display periods, among the $n + m$ display periods, corresponding to respective bits of the digital video signal are taken as $Tr_1, Tr_2, Tr_3, \dots, Tr_{n-1}, Tr_n$.

24. (Previously presented) A method according to claim 21, wherein the first TFT functions as a switching TFT and the second TFT functions as an EL driver TFT.

25. (Previously presented) A method according to claim 1, wherein after each of the $n + m$ display periods begins, the respective display periods are completed by the beginning of another display period.

26. (Previously presented) A method according to claim 1, wherein after each of the $n + m$ display periods begins, the respective display periods are completed by the third TFT turning on.

27. (Previously presented) A method according to claim 5, wherein after each of the $n + m$ display periods begins, the respective display periods are completed by the beginning of another display period.

28. (Previously presented) A method according to claim 5, wherein after each of the $n + m$ display periods begins, the respective display periods are completed by the third TFT turning on.

29. (Previously presented) A method according to claim 9, wherein after each of the $n + m$ display periods begins, the respective display periods are completed by the beginning of another display period.

30. (Previously presented) A method according to claim 9, wherein after each of the $n + m$ display periods begins, the respective display periods are completed by the third TFT turning on.

31. (Previously presented) A method according to claim 13, wherein after each of the $n + m$ display periods begins, the respective display periods are completed by the beginning of another display period.

32. (Previously presented) A method according to claim 17, wherein after each of the $n + m$ display periods begins, the respective display periods are completed by the beginning of another display period.

33. (Previously presented) A method according to claim 21, wherein after each of the $n + m$ display periods begins, the respective display periods are completed by the beginning of another display period.

34. (Previously presented) A method according to claim 1, wherein the first display period is a divided display period in said frame period, and wherein the last display period is a display period in said one frame period.

35. (Previously presented) A method according to claim 1, wherein the first display period is one of the plurality of display periods in said frame period, and wherein the last display period is one of the other display periods in said frame period.

36. (Previously presented) A method according to claim 5, wherein the first display period is a divided display period in said frame period, and wherein the last display period is a display period in said one frame period.

37. (Previously presented) A method according to claim 5, wherein the first display period is one of the plurality of display periods in said frame period, and wherein the last display period is one of the other display periods in said frame period.

38. (Previously presented) A method according to claim 9, wherein the first display period is a divided display period in said frame period, and wherein the last display period is a display period in said one frame period.

39. (Previously presented) A method according to claim 9, wherein the first display period is one of the plurality of display periods in said frame period, and wherein the last display period is one of the other display periods in said frame period.

40. (Previously presented) A method according to claim 13, wherein the first display period is a divided display period in said frame period, and wherein the last display period is a display period in said one frame period.

41. (Previously presented) A method according to claim 13, wherein the first display period is one of the plurality of display periods in said frame period, and wherein the last display period is one of the other display periods in said frame period.

42. (Previously presented) A method according to claim 17, wherein the first display period is a divided display period in said frame period, and wherein the last display period is a display period in said one frame period.

43. (Previously presented) A method according to claim 17, wherein the first display period is one of the plurality of display periods in said frame period, and wherein the last display period is one of the other display periods in said frame period.

44. (Previously presented) A method according to claim 21, wherein the first display period is a divided display period in said frame period, and wherein the last display period is a display period in said one frame period.

45. (Previously presented) A method according to claim 21, wherein the first display period is one of the plurality of display periods in said frame period, and wherein the last display period is one of the other display periods in said frame period.